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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,952	12/27/2001	Jacques Debiez	2001-072-TOU	9352
7590	02/23/2006		EXAMINER	
Wayne P. Bailey Storage Technology Corporation One StorageTek Drive, MS-4309 Louisville, CO 80028-4309			SCHUBERT, KEVIN R	
			ART UNIT	PAPER NUMBER
			2137	

DATE MAILED: 02/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/034,952	DEBIEZ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Kevin Schubert	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 20 January 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-13 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-4,6,9,10 and 13 is/are rejected.
- 7) Claim(s) 5,7-8,11-12 is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|  | 6) <input type="checkbox"/> Other: _____                                    |

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**DETAILED ACTION**

Claims 1-13 have been considered. Claims 1-4, 6, 9-10, and 13 have been rejected. Claims 5, 7-8, and 11-12 have been objected to but marked as allowable if rewritten in independent form.

5

***Allowable Subject Matter***

Claims 5, 7-8, and 11-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20

Claims 1-2, 4, and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weppler, U.S. Patent No. 5,661,700, in view of Schneier (Schneier, Bruce. Applied Cryptography. Washington, DC. 1996. pages 75-78) in further view of Hartman, U.S. Patent No. 5,500,897.

25

As per claim 1, the applicant describes a trusted high stability time source for use with a digital time stamping service and a trusted external time source, the time source comprising the following limitations which are met by Weppler in view of Schneier in further view of Hartman:

a) a private time source in the form of a local running clock and indicating a private time (Weppler: Col 5, line 1 to Col 7, line 34);

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- b) a published time source in the form of a local running clock and indicating a published time (Weppler: Col 5, line 1 to Col 7, line 34);
- c) at least one power supply arranged to power the private time source and the published time source (Weppler: Col 5, line 1 to Col 7, line 34);
- 5 d) control logic programmed to perform a time stamping operation by receiving a message, appending the published time to the message to create a timestamp, and digitally signing the timestamp with a private key (Schneier: pages 75-78);
- e) the control logic being further programmed to perform a published time source update by sending a request to the trusted external time source for a published time update, receiving a reply from
- 10 the trusted external time source including the published time update, and updating the published time with the published time update if an update condition is satisfied, wherein the update condition is based in part on a time difference between the private time and the published time update (Hartman: Col 3, lines 2-7; Weppler: Col 5, line1 to Col 7, line 34);

Weppler discloses a private time source in the form of a local running clock and indicating a private time (part a), a published time source in the form of a local running clock and indicating a published time (part b), at least one power supply arranged to power the private time source and the published time source (part c), and updating the published time with the published time update if an update condition is satisfied, wherein the update condition is based in part on a time difference between the private and the published time update (part e).

20 Weppler, however, does not disclose the use of timestamping in the system. More specifically, Weppler does not disclose control logic programmed to perform a time stamping operation by receiving a message, appending the published time to the message to create a timestamp, and digitally signing the timestamp with a private key (part d). Schneier discloses the limitations of the above and also teaches that timestamping data is useful, in systems that keep a time signal, to establish data authenticity. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Schneier with those of Weppler and use the time capabilities in a timestamping operation because doing so is a useful means for establishing data authenticity.

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Weppler in view of Schneier disclose all the limitations of the above claim, except for the limitation that the control logic sends a request to the trusted external time source for a published time update. The idea of requesting a time update from an external source is disclosed by Hartman. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of

- 5 Hartman with those of Weppler in view of Schneier because doing so allows the control logic to receive a time update in a system in which the time updates are not sent automatically.

As per claim 2, the applicant describes the trusted high stability time source of claim 1, which is met by Weppler in view of Schneier in further view of Hartman, with the following limitation which is met  
10 by Weppler:

A printed circuit board including a connector for connecting to a bus of a computer, wherein the private time source, the published time source, the at least one power supply, and the control logic are mounted to the printed circuit board (Weppler: Col 5, line 1 to Col 7, line 34).

- 15 As per claim 4, the applicant describes the time source of claim 1, which is met by Weppler in view of Schneier in further view of Hartman, with the following limitation which is met by Hartman:

Wherein the control logic is programmed to perform the published time source update at least once per month (Hartman: Col 3, lines 2-7).

As described by Hartman, the time updates can occur at any prescribed regular time interval.

- 20 As per claim 6, the applicant describes the high stability time source of claim 1, which is met by Weppler in view of Schneier in further view of Hartman, with the following limitation which is met by  
Weppler:

Wherein the control logic updates the published time with the published time update in an update  
25 manner that is based on a time difference between the published time and the published time update  
(Weppler: Col 5, line 1 to Col 7, line 34).

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Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weppler in view of Schneier in further view of Hartman in further view of Esker, U.S. Patent No. 6,236,277.

As per claim 3, the applicant describes the time source of claim 1, which is met by Weppler in  
5 view of Schneier in further view of Hartman, with the following limitation which is met by Esker:

- a) a first crystal oscillator configured to stabilize the private time source (Esker: Col 7, lines 3-11);
  - b) a second crystal oscillator configured to stabilize the published time source (Esker: Col 7, lines 3-11);

Weppler in view of Schneier in further view of Hartman disclose all the limitations of claim 1.  
10 However, Weppler in view of Schneier in further view of Hartman fail to disclose that the private time source and the published time source have crystal oscillators.

Esker discloses a time system in which a clock is stabilized by a crystal oscillator. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Esker with those of Weppler in view of Schneier in further view of Hartman because using a crystal  
15 oscillator is a common way of efficiently maintaining a clock.

Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weppler in view of Schneier in further view of Hartman in further view of Watson, U.S. Patent No. 6,775,704.

20 As per claims 9 and 10, the applicant describes the time source of claim 1, which is met by Weppler in view of Schneier in further view of Hartman, with the following limitation which is met by Watson:

Wherein the update condition is further based on an elapsed time between sending the request and receiving the reply (Watson: Col 7, lines 29-32);

25 Weppler in view of Schneier in further view of Hartman disclose all the limitations of claim 1. However, Weppler in view of Schneier in further view of Hartman fail to disclose the idea that an update condition is based on an elapsed time between sending the request and receiving the reply.

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Watson discloses this idea in which a message is checked to make sure that it was not sent more than 5 to 20 seconds after it is received. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Watson with those of Weppler in view of Schneier in further view of Hartman and incorporate the use of monitoring the elapsed time from when a request  
5 was sent to when the reply is received so that replay attacks do not occur.

Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weppler in view of Schneier in further view of Hartman in further view of Terao, U.S. Patent No. 6,651,167.

10 As per claim 13, the applicant describes the trusted high stability time source of claim 1, which is met by Weppler in view of Schneier in further view of Hartman, with the following limitation which is met by Terao:

A tamperproof enclosure encapsulating the private time source, the published time source, and the control logic (Terao: Col 7, lines 2-11);

15 Weppler in view of Schneier in further view of Hartman disclose all the limitations of claim 1. However, Weppler in view of Schneier in further view of Hartman do not disclose that the enclosure encapsulating the private time source, the published time source, and the control logic is *tamperproof*. Terao discloses the idea of making an enclosure tamperproof. It would have been obvious to one of ordinary skill in the art at the time the invention was filed to combine the ideas of Terao with those of  
20 Weppler in view of Schneier in further view of Hartman and make the enclosure tamperproof because doing so makes the system more secure.

#### ***Response to Arguments***

Applicant's arguments filed 1/20/06 with respect to the 112 second paragraph rejection of all  
25 pending claims have been fully considered and are persuasive. Therefore, the 112 second paragraph rejection of all pending claims has been withdrawn.

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Applicant's arguments with respect to the 103(a) rejection of claim 1 under Weppler in view of Schneier in further view of Hartman have been fully considered but they are not persuasive. Applicant presents the following arguments:

- 5 (1) There is no motivation to combine Weppler, Schneier, and Hartman  
(2) There is nothing in Weppler that suggests the particular claimed approach to updating the published time used for time stamping in a trusted high stability time source and the required update condition

Examiner respectfully disagrees. Regarding (1), Applicant argues that there is no motivation to 10 combine Weppler, Schneier, and Hartman. Applicant appears to argue that there is no motivation for combination because Weppler is about synchronizing clocks, Schneier is about time stamping, and Hartman is about a time keeping system (Remarks, page 2 first paragraph). Examiner respectfully submits that the test for motivation is not whether or not references have different functions. Further, Examiner fails to see how such an argument can be anything but spurious since motivation was expressly 15 provided in the previous action. Applicant is advised that motivation was provided for combining Schneier with Weppler (page 4, lines 20-23) and that motivation was provided for combining Hartman with Weppler in view of Schneier (page 4, line 26 to page 5, line 2).

Regarding (2), Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how 20 the language of the claims patentably distinguishes them from the references. Specifically, Applicant provides two statements about Weppler and concludes that there is nothing in Weppler that suggests the particular claimed approach to updating the published time used for time stamping in a trusted high stability time source and the required update condition (Remarks, page 2 second paragraph). Such an argument fails to comply with the provisions of 37 CFR 1.111(b) as Applicant merely provides an 25 expansive allegation of patentability without particularly pointing out what specifically is deficient in the rejection and how the language of the claim patentably distinguishes it from the reference(s).

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Furthermore, even if the statement were in compliance with 37 CFR 1.111(b), the argument is moot in light of the fact that Examiner never offers that Weppler suggests the particular claimed approach to updating the published time used for time stamping in trusted high stability time source and the required update condition. In fact, Examiner explicitly notes that Weppler **does not** teach the particular  
5 claimed approach as Weppler never discloses timestamping (page 4, line 16) and Weppler never discloses requesting a published time update (page 4, lines 24-25). Examiner has rejected the particular claimed approach under the combination of Weppler in view of Schneier in further view of Hartman.

### ***Conclusion***

10       **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH  
15 shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should  
20 be directed to Kevin Schubert whose telephone number is (571) 272-4239. The examiner can normally be reached on M-F 7:30-6:00.

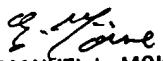
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Emmanuel Moise can be reached on (571) 272-3865. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should  
5 you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

10

KS

  
EMMANUEL L. MOISE  
SUPERVISORY PATENT EXAMINER